

From the INTERNATIONAL BUREAU

**PCT**

NOTIFICATION CONCERNING  
TRANSMITTAL OF COPY OF INTERNATIONAL  
PRELIMINARY REPORT ON PATENTABILITY  
(CHAPTER I OF THE PATENT COOPERATION  
TREATY)

(PCT Rule 44bis.1(c))

To:

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Date of mailing (day/month/year)

17 August 2006 (17.08.2006)

Applicant's or agent's file reference

3194.1038002

**IMPORTANT NOTICE**

International application No.

PCT/US2005/003287

International filing date (day/month/year)

03 February 2005 (03.02.2005)

Priority date (day/month/year)

05 February 2004 (05.02.2004)

Applicant

ENTEGRIS INC. et al

The International Bureau transmits herewith a copy of the international preliminary report on patentability (Chapter I of the Patent Cooperation Treaty)

**RECEIVED**

AUG 24 2006

The International Bureau of WIPO  
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# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 3194.1038002	FOR FURTHER ACTION		See item 4 below
International application No. PCT/US2005/003287	International filing date ( <i>day/month/year</i> ) 03 February 2005 (03.02.2005)	Priority date ( <i>day/month/year</i> ) 05 February 2004 (05.02.2004)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant ENTEGRIS INC.			

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 *bis*.1(a).

2. This REPORT consists of a total of 9 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Box No. I    | Basis of the report   |
| <input type="checkbox"/> Box No. II              | Priority  |
| <input checked="" type="checkbox"/> Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  |
| <input checked="" type="checkbox"/> Box No. IV   | Lack of unity of invention  |
| <input checked="" type="checkbox"/> Box No. V    | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> Box No. VI              | Certain documents cited   |
| <input checked="" type="checkbox"/> Box No. VII  | Certain defects in the international application  |
| <input checked="" type="checkbox"/> Box No. VIII | Certain observations on the international application   |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland		Date of issuance of this report 07 August 2006 (07.08.2006)
Facsimile No. +41 22 338 82 70		Authorized officer  Beate Giffo-Schmitt
Form PCT/IB/373 (January 2004)		e-mail: pt03@wipo.int

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

REC'D 06 SEP 2005

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To:

see form PCT/ISA/220

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/US2005/003287

International filing date (day/month/year)  
03.02.2005

Priority date (day/month/year)  
05.02.2004

International Patent Classification (IPC) or both national classification and IPC  
H01L21/00, H01L21/68, B01D46/00, B01D50/00, F24F3/16

Applicant  
MYKROLIS CORPORATION

### 1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☒ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

### 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

### 3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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D-80298 Munich  
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WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.  
PCT/US2005/003287

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Box No. I Basis of the opinion

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1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material:
    - ☐ in written format
    - ☐ in computer readable form
  - c. time of filing/furnishing:
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.  
PCT/US2005/003287

Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial  
applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application,

☒ claims Nos. 13-19

because:

☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):

☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 13-19 are so unclear that no meaningful opinion could be formed (*specify*):

see separate sheet

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

☐ no international search report has been established for the whole application or for said claims Nos.

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

the written form

☐ has not been furnished

☐ does not comply with the standard

the computer readable form

☐ has not been furnished

☐ does not comply with the standard

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.

☒ See separate sheet for further details

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/US2005/003287

**Box No. IV Lack of unity of invention**

1. ☒ In response to the invitation (Form PCT/ISA/206) to pay additional fees, the applicant has:
- ☒ paid additional fees.
  - ☐ paid additional fees under protest.
  - ☐ not paid additional fees.
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is
- ☐ complied with
  - ☒ not complied with for the following reasons:  
see separate sheet
4. Consequently, this report has been established in respect of the following parts of the international application:
- ☒ all parts.
  - ☐ the parts relating to claims Nos.

**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	1, 20
Inventive step (IS)	Yes: Claims	
	No: Claims	1-12, 20, 21
Industrial applicability (IA)	Yes: Claims	1-12, 20, 21
	No: Claims	

2. Citations and explanations

see separate sheet

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/US2005/003287

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**Box No. VII Certain defects in the international application**

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The following defects in the form or contents of the international application have been noted:

see separate sheet

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**Box No. VIII Certain observations on the international application**

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The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

**Re Item III.**

- 1.0 Although claims 13 and 19 have been drafted as separate independent method claims, they appear to relate effectively to the same subject-matter and to differ from each other only with regard to the definition of the subject-matter for which protection is sought and in respect of the terminology used for the features of that subject-matter. The aforementioned claims therefore lack conciseness and as such do not meet the requirements of Article 6 PCT.

**Re Item IV.**

The separate groups of inventions are:

1) Claims 1-12:

This invention concerns a method of purifying a transfer container comprising the step of purging the transfer container with a gas having a certain concentration.

The problem to be solved is to reduce device contamination.

2) Claims 13-21:

This invention is directed to a method and a system of transferring an object from a transfer container to a sealed chamber.

The problem to be solved is to improve the process control.

They are not so linked as to form a single general inventive concept (Rule 13.1 PCT).

**Re Item V.**

- 1.0 The following documents (D) cited in the Partial International Search Report are pertinent to this communication, the numbering will be adhered to in the rest of the procedure:

D1: US 2002/124906 A1 (SUZUKI YOKO ET AL) 12 September 2002 (2002-09-12)



D2: EP-A-1 067 583 (EBARA CORPORATION) 10 January 2001 (2001-01-10)

- 2.0 The current application does not meet the requirements of Article 33(2) PCT, since the subject-matter of claims 1 and 20 is not new.
- 2.1 Regarding independent claim 1, Document D1 shows a method of purifying transfer container, comprising (see paragraphs 11 and 220, figures 57A and 57B): purging the transfer chamber with gas having a concentration of contaminants no greater than 100 part per trillion, the transfer chamber being not hermetically sealed.

Consequently, the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

- 2.2 Document D2 is likewise novelty-destroying for the subject-matter of claim 1 (cf. paragraph 42; table 1).
- 2.3 Regarding independent claim 20, Document D1 reveals likewise a system for transferring an object between two environments, comprising (cf, Figures 57A, 57B and 68, paragraphs 11, 220, 243 and 245):
- a) a non hermetically sealed transfer container, the container having an environment purged with a gas having a concentration of contaminants no greater than 100 parts per trillion,
  - b) a sealed chamber connected with the transfer container, and
  - c) a closable door configured to separate the environment of the sealed chamber from an environment of the transfer container when the door is closed.

Hence, the subject-matter of claim 20 lacks novelty in the sense of Article 33(2) PCT.

- 3.0 Dependent claims 2-12 and 21 not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step, the reasons being as follows:

- The additional feature of the respective claims 2-12 and 21 is merely one of several straightforward possibilities from which the skilled person would select, in accordance

with circumstances, without the exercise of inventive skill (Article 33(3) PCT).

**Re Item VII.**

- 1) To meet the requirements of Rule 5.1 (a)(ii) PCT, the documents D1 and D2 should be identified in the description and their relevant contents should be indicated.
- 2) The feature of the claims 1-12 are not provided with reference signs placed in parentheses (Rule 6.2 (b) PCT).

**Re Item VIII.**

- 1.0 In claims 1, 5-9 and 20 the expression "about" is vague and imprecise. Therefore, the subject-matter of these claims is not clear (Article 6 PCT).